Botanical Bulletin.

Vol. 1. JULY, 1876. *No. 9.*

CARICES IN WASHINGTON, D. C.—In the vicinity of Washington, D. C., there are about 60 species of *Carex*, of which some are interesting and deserving a short notice.

Carex Willdenowii, SCHK. is frequent on woody hill-sides. *C. Steudellii*, KUNTH. is more abundant but in deeper shade. *C. bromoides*, SCHK. I have found only in bogs near the river; never on upland bogs. *C. muricata*, L. occurs in the grounds of the Ag. Dept., probably introduced among foreign seeds. We have *C. sparganioides*, MUHL., *C. cephalophora*, MUHL., and *C. Muhlenbergii*, SCHK., besides one or two intermediate forms difficult to classify. I have only seen *C. canescens*, L. from one locality; I did not expect to find it so far south. *C. fœna*, WILLD. is common in meadows and low grounds near the river. A variety of *C. aquatilis*, WAHL. is found in the river marshes. It is less robust than the northern form, with more slender spikes, approaching *C. stricta*. *C. torta*, BOOTT is quite rare, occurring only in two locilities so far as I have observed. *C. Shortiana*, DEW. occurs in several localities in low ground, but *not* in marshes. A remarkable form of *C. tetanica*, SCHK. is found in open woods in thin patches. The rhizoma runs near the surface of the ground, covered with decayed leaves, and sends up numerous tufts of long radical leaves, and but few fruiting culms which are slender and with two or three lax spikes, one of which is usually sub-radical and long peduncled. It is the same form which was found in Jeff. Co., N. Y., over 30 years ago by Dr. Wood and named for him *C. Woodii* by Prof. Dewey. It is a very distinct form if not entitled to be called a species. *C. granularis*, MUHL. is rare, but a closely related species *C. glaucodea*, TUCK. is quite common in open woods in clay soil. *C. pallescens*, L. I have found in very small quantity. It appears to be south of its usual range. *C. virescens*, MUHL. and *C. triceps*, MICHX. are very common, with, I think, the form called *C. Smithii*, PORTER. *C. plantaginea*, LAM. has not been observed here, but *C. platyphylla*, CAREY is common, and also the broad leaved form of *C. laxiflora*, LAM. We have also the *C. laxiflora* var. *styloflexa* (*C. styloflexa*, DEW.). It appears to be worthy of specific rank. *C. retrocurva*, DEW., one of the most graceful of Carices, is abundant, as is also *C. digitalis*, WILLD. but they are perfectly distinct. *C. retrocurva* has glaucous and broader leaves, and the culms are always prostrate, or nearly so. *C. oligocarpa*, SCHK. and *C. Hitchcockiana*, DEW. are both here and quite distinct. *C. umbellata*, SCHK. occurs sparingly in the usual situations, and also *C. nigro-marginata*, SCHW. on rich woody hill-sides. *C. Emmonsii*, DEW., *C. Pennsylvanica*, LAM. and *C. varia*, MUHL. are here with intermediate and puzzling forms, some of which may be *C. Novæ-Angliæ*, SCHW. In moist sandy woods we have sparingly *C. vestita*, WILLD. *C. squarrosa*, L. and *C. stenolepis*, TORR. are both frequent in low grounds.—GEO. VASEY, *Department of Agriculture, Washington, D. C.*

A NEW CYPERUS.—The sedge noticed below was sent me by Mr. Wolf, the discoverer, and first published in the January issue of the "Bulletin of the Torrey

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Botanical Club." As the new species is native in your vicinity, you may facilitate its re-discovery by giving it place in your BULLETIN.

CYPERUS WOLFII, *n. sp.*—Culm triangular, glabrous, leafy at the base. Umbel simple, about 5-rayed, rays very unequal, monocephalous. Heads spherical, simple, of many spikes. Involucre about 5-leaved, 2 of the leaves nearly as long as the culm. Spikes densely capitate, oblong, 4—5-flowered, scales imbricate, obtuse, submucronate, 11-nerved, with a green keel. Rachis broadly winged with a pair of hyaline awn-pointed scales. Filaments 3, deciduous. Style trifid. Achenia triangular—obovoid, apiculate, incurved.

Found by Mr. John Wolf, of Canton, Illinois, in Anna, Ill. The culms are 2-3 feet high, slender, the leaves nearly as long, narrowly linear, those of the involucre more than half as long. The spikes are 3—6 lines long, 3—6-flowered, finally a little brownish.

In general aspect it resembles *C. filiculmis*, but differs widely in its spikes, both from this and from *C. Grayi*. It is most nearly allied to *C. Sieberi* (Kunth.) of Australia, but the short involucre, and composite heads, and 6—9-flowered spikes of that species are sufficiently distinctive.—A. WOOD.

SOME NOTES FROM PULASKI COUNTY, VA.—I send you an *Arisæma* to show you the size of things here. Many plants growing to moderate size elsewhere, assume huge proportions on the red soil of Rich Hill. The bank of New river under the hill-side was splendidly set off a few weeks ago with the graceful bells of *Halesia*. Beneath, a month later, I found a variety of *Viola tricolor*, *Woodsia obtusa*, *Saxifraga Virginica*, and a few other things. Our cliffs are now covered with the Saxifrage. I also found *Draba*, and a variety of *Sedum*, with snowy flowers. The stem shoots up from amid rosulate leaves, which are obovate, or very short-spatulate, often not rounded, but wedge-shaped, giving the idea, at first, of leaves of *Draba ramosissima*. Stem leaves spatulate to *linear-spatulate*, *close* set on the *high* simple stem, and more sparingly on the three branches at its summit. Parts of the flower in 4s (center one in 5s), *ovate-lanceolate*, somewhat pointed petals *twice* the length of the ovate, blunt sepals. It is probably *S. Nevii* which Mr. Canby found on Salt Pond Mountain.—HOWARD SHRIVER.

PLANTS NEW TO JEFFERSON COUNTY.—After making out a list of plants new to the flora of Jefferson County, for the last number of the BULLETIN, Mr. A. H. Young handed me the list given below, containing plants recently found but not included in the list of last month.

Ceanothus Americanus, L.
Lespedeza violacea, Pers.
Apios tuberosa, Mœnch.
Hydrocotyle Americana, L.
Aster carneus, Nees.
" *œstivus*, Ait.
Solidago radula, Nutt.
Helianthus tomentosus, Mx.
" *strumosus*, L.
Coreopsis trichosperma, Mx.
Bidens cernua, L.
Artemisia biennis, Willd.
Nabalus albus, Hook.
" *altissimus*, Hook.
Eleocharis obtusa, Sch.
Scirpus Eriophorum, Mx.
Aphyllon uniflorum, T. & G.
Pedicularis lanceolata, Mx.
Scutellaria canescens, Nutt.
Lithospermum hirtum, Lehm.
Quercus imbricaria, Mx.
Alnus serrulata, Ait.
Juniperus Virginiana, L.
Cyperus diandrus, Torr.
" *flavicomus*, Mx.
" *inflexus*, Muhl.
" *phymatodes*, Muhl.
" *strigosus*, L.
" *Michauxianus*, Schultes.
" *ovularis*, Torr.
Kyllingia pumila, Mx.
Fimbristylis autumnalis, R. & S.
Osmunda cinnamomea, L. ED.

SOME CARICES NEAR HANOVER, IND.—No justice has been done to the large and interesting genus *Carex* in this neighborhood, and we are but beginning to get to-

gether the material for its thorough working up. A large collection of *Carices* from all parts of the county is to be made this season and then we can hope to do more justice to the subject. As this number of the BULLETIN seems to be devoted to the interests of *Carex* we have thought it would be interesting to put on record such *Carices* as have been heard from, with a few disconnected notes that have been made when determining them.

Carex vulpinoidea, Mx.—This is one of our most abundant sedges, probably standing next to *C. triceps* in that respect. We have found here all the different varieties, the perigynia varying from broad ovate to lanceolate, and the beak becoming strongly serrate. The achenium is a beautiful shape, having the outline of a balloon, as near as I can express it, and on the rounded top of this balloon rests a slender style nearly as long as the achenium and plainly thickened at base. *C. stipata*, Muhl. This has a wonderful look like *C. vulpinoidea*, but a little examination shows it to be different in many points. Its perigynia are lanceolate, although the other has that form occasionally, more strongly nerved, longer and rougher beaked, and the style is *twice* the length of the achenium.

C. sparganioides, Muhl. The narrow margin of the perigynium of this species is very sharply toothed.

C. cephalophora, Muhl. We have this species with its short ovoid head of spikes, its perigynia with 3 or 4 indistinct nerves on one side, but the style is as short and bulbous as in *C. Muhlenbergii*.

C. Muhlenbergii, Schk. var. *enervis*, Boott. Very little of the typical form has been found unless 3 or 4 nerves mean "many-nerved." We have the oblong head of bracted spikes, the short-beaked perigynia and the very short bulbous style, but in none have I been able to count more than 3 or 4 nerves on each side of the perigynium. A characteristic that might well be noted is that the bristle-shaped bract subtending the lowest spike is very much elongated, sometimes being 3 times the length of the head.

C. rosea, Schk. has been found in considerable abundance in damp woods.

C. scoparia, Schk.—This is found every where in meadows and is very easily distinguished by its chaffy-looking, straw-colored spikes. When the perigynium is looked at by transmitted light the membranaceous wing, with its fringe of spiny points, comes out strong and is translucent, containing one and sometimes two dark-looking nerves. In my specimens the style is three times as long as the achenium and the stalk but one-half shorter.

C. Buxbaumii, Wahl. is one of the most graceful of our *Carices*. The scale is not all brown-purple, but two or three nerves, looking like a broad midrib, run between the dark purple sides in a light green band and are continued into a long awn which is two or three times as long as the lower part.

C. gracillima, Schw. A most beautiful sedge. It may be owing to poor drying, but the perigynia in all my specimens are light brown instead of green. The white scales are all short awned. In all the specimens found the uppermost spike bore at the apex 4—6 fertile flowers.

C. virescens, Muhl. In some of its forms this species looks like the next, but a glance through the glass at its perigynia, looking like little chesnut burs, even when mature, does away with all thoughts of resemblance. The bright, transparent scale has running through it a strong green midrib terminating in a rigid, cuspidate, rough point.

C. triceps, Michx. Of all *Carices* this is by far the most abundant here. It covers the ground for acres and the young collector here is apt to find half of his collection of Carices *C. triceps* and the other half *C. laxiflora*. We find here both the very hirsute and nearly smooth varieties.

C. digitalis, Willd. is rather rare. In the specimens collected the leaves are twice as long as the culms and the whole plant resembles some forms of *C. laxiflora*.

C. laxiflora. Lam. This surpasses all our other *Carices* in variety, although not in abundance. It straggles over the ground with long, weak, reclining culms, or stands in little upright tufts. The commonest variety is var. *plantaginea*, Boott., which is found in considerable abundance on rich hill-sides.

C. oligocarpa, Schk. occurs but sparingly, but is well distinguished by its densely striate perigynia. All my specimens have the point of the perigynium somewhat oblique and sometimes it is so nearly recurved I would be tempted to call it *C. Hitchcockiana*, but for its very smooth leaves and sheaths and slender habit.

C. eburnea, Boott. This delicate and beautiful little *Carex* grows in dense bunches in Clifty ravine and mats the bases of some of the limestone cliffs with its soft spray. The good fruiting specimens seem to be rather hard to get, for it takes careful hunting here to get all that is wanted.

C. Emmonsii, Dew. probably occurs here but no perigynia have been found mature enough to satisfactorily settle the point.

C. Pennsylvanica, Lam , *C. pubescens*, Muhl., *C. debilis*, Michx., and *C. lanuginosa*, Mx., all occur in abundance.

C. tentaculata Muhl. The section of *Carices* with long-beaked and inflated perigynia, is well represented here. This, together with the four following species fill all our swampy ground, and could be secured by the thousands. This species, in my opinion, has the most beautiful achenium of any *Carex* with which I am acquainted. The graceful outline and the papillose-roughened surface make it an exceedingly lovely object when looked at through a good clear glass. There is one peculiarity about it that I have not seen mentioned anywhere. I have opened dozens of the inflated perigynia and in every case have found the long style ascending from the achenium bayonet fashion, making two sharp bends. A line or two from the top of the achenium it makes a sharp bend until it reaches the wall of the perigynium and then hugs it closely to the apex. It reminded me strongly of the long bent middle awn on the lower palet of *Aristida dichotoma*, Michx. May be this is a contrivance for burying the achenium on the principle suggested by Mr. Francis Darwin in the case of *Stipa pennata*.

C. intumescens, Rudge. This is probably the most abundant of the last five species in this list. In nearly all specimens collected the beak is perfectly smooth except the two teeth which are very rough.

C. lupulina, Muhl. This is the largest, coarsest looking sedge we have, and one would hardly expect to find any beauty in it. But if one of those large bladdery inflated perigynia be looked at through a glass, any one will confess its beauty. The walls of the perigynium seem to be more membranous than usual and easily let the light pass through them. This brings out about twenty prominent nerves which stand up sharp and distinct, while between these is the most delicate reticulation. Now strip off the perigynium and look at the large achenium and long style. The same delicate reticulation extends from the bottom of the achenium to the tip of the style, making it all look like one piece. The style in this species makes the same bends as that in *C. tentaculata*, but instead of bending in the same plane it makes a spiral twist.

C. squarrosa, L. In all my specimens the scales are lanceolate-acute and very far from "blunt." The perigynia of this species have the same reticulation as that above, but they lack the strong ribs of the former. The achenium and style are reticulated in the same way, but seem very much darker. The style has the same twist as in *C. lupulina*, but still more so, often making three bends in a spiral.

C. stenolepis, Torr. The long awn-like scales of this species when seen through a microscope remind one of the weapon of the saw-fish. The beak rises from the very deeply sunken summit of the perigynium. The achenium is decidedly wedge-shaped in outline with a short abrupt point.

Several other *Carices* have been collected but have not yet been studied.—Ed.